Exhibit P

LEGACY CHARGE DERIVATION

Legacy Charge Derivation

a. Guiding Principles in Deriving the Legacy Charge

PREPA's Plan of Adjustment specifies that payment of the New Bonds will be funded through an increase in Net Revenues generated through the imposition and collection of a Legacy Charge added to the bills of PREPA's customers. The imposition of this Legacy Charge will have a material impact on PREPA's customers and revenues. The Oversight Board derived the Legacy Charge with reference to, among other things, the following considerations: (1) overall customer affordability (customer ability and willingness to pay for PREPA's services before they seek out alternatives and/or out-migrate to other jurisdictions); (2) PREPA's sustainability (the extent to which PREPA can be expected to continue as a going concern by, among other things, being able to raise rates to generate revenues to make necessary capital investments, fund operating expenses and required contributions to pensions without reaching the point of losing customers and revenues due to incremental rate hikes); and (3) the likely cost of alternatives to PREPA's services (for example, customers installing photovoltaic (PV) solar panels on their homes or businesses) and the potential impact of those alternatives on PREPA's customer base and revenues.

The Legacy Charge was designed to incorporate many economic and societal considerations, including:¹

- <u>Residential Affordability</u>. The large number of low-income households in Puerto Rico means that many PREPA residential customers have limited or no ability to afford higher rates without sacrificing other necessities.
- Elasticity. As discussed in detail below, higher rates, and the resulting higher bills for customers, ultimately induce customers to reduce their consumption of electricity from PREPA (including notably by using electricity generated by solar PV installed at their premise), "cut the cord" from the grid entirely either through taking full responsibility for their electricity generation or even out-migrating from Puerto Rico. Whenever customers decrease their consumption, the remaining customers must shoulder higher shares of the electric system's fixed costs. Increases of rates beyond some level accelerate these trends in ways that become difficult for PREPA to manage and, given that higher-income customers tend to have more opportunities to respond to rate hikes with actions such as installing solar roofs, risk burdening particularly lower-income customers. Therefore, rates must be kept below levels that will excessively accelerate an otherwise generally healthy trend towards increased use of distributed resources including solar PV.
- <u>Comparables and Precedent</u>. The fixed charge portion of rates applied by electric utilities across the U.S. were used as benchmarks of the level of fixed charges that can reasonably be applied in Puerto Rico.

¹ As set forth in more detail in section VIII of the Disclosure Statement, to the extent the Legacy Charge incorporates forward-looking projections, actual results may differ from such projections and, inherent in using forward-looking projections, there can be no guarantee that these projections and related considerations used in developing the Legacy Charge will match the actual results and conditions in the future.

- <u>Cost of Service</u>. An effort was made to ensure the Legacy Charge did not result in a significant and unjustifiable deviation from the current proportion of revenues coming from each of the various PREPA customer classes (*i.e.*, Residential, Commercial, and Industrial).
- <u>Projected Capital Expenditures and Costs</u>. The Oversight Board considered future rate
 increases that would need to be made to fund anticipated capital expenditures, operating
 expenses, funding of pensions and other costs (such as federal funds matching) necessary
 to keep PREPA operational.
- <u>Debt Repayment</u>. Given the antiquated and fragile nature of PREPA's infrastructure, all incremental revenues could be used to transform PREPA into a modern, efficient, clean utility. The Oversight Board, however, sought to size the Legacy Charge to provide a sustainable and affordable amount of debt service.

b. Structure

PREPA's customers comprise a large variety of different types of consumers, from low-income households to big-box retailers. As set forth in Schedule B to the Plan, the Oversight Board has assigned a Legacy Charge to the various existing customer types consistent with the goals of sustainability and affordability. The composition of the Legacy Charge utilized the existing structure of PREPA's current rate classifications: Residential, Commercial, and Industrial (as well as subclassifications therein, for example based on customer size in terms of electricity demand).

The Legacy Charge was based on the general design of PREPA's existing rates, including both fixed monthly charges (*i.e.*, a monthly connection charge regardless of how much electricity is consumed) and volumetric charges, which depend on the amount of electricity the customer consumes per month (*i.e.*, a per-kWh charge applied to the kWhs consumed in the billing period).

c. Elasticity, in General

An important consideration for the Oversight Board in designing the Legacy Charge was the impact that increasing PREPA's rates would have on PREPA's sales. As a general matter, the higher PREPA's rates are, the more PREPA's rates incentivize customers to choose alternatives. Sales of electricity decline, as consumers limit their energy consumption or use alternative sources of energy to reduce their bills. The design of electricity rates (*i.e.*, the combinations and levels of fixed and volumetric charges), in general, has an impact on sales to customers (including customers' decision to remain on the grid), especially when substitutes (such as photovoltaic panels and customer-premise battery storage and diesel generators) are available at economical prices.

The response of customers to rate changes, in terms of their reduction in the kWhs consumed (or even whether they remain PREPA customers at all) is referred to as the "price elasticity of demand." This can be estimated for a given group of customers by analyzing historical data and economic literature, as well as assessing recent and expected future trends and anticipated consumer behaviors.

d. Initial Estimation of Incremental Rates

The Oversight Board derived the Legacy Charge in light of the Oversight Board's goal of ensuring PREPA's rates are sustainable in the long-term and affordable for PREPA's consumers. Any increase in PREPA's rates, including the Legacy Charge, cannot exceed the conceptual upper bound of affordability: the total rate that PREPA customers can pay without (1) threatening the sustainability of PREPA as a functioning utility; (2) threatening the sustainability of the Puerto Rico economy; and/or (3) subjecting customers to undue hardship (*i.e.*, making rates unaffordable to those customers). The Oversight Board has calculated the difference between the revenues from PREPA's rates in its most recent Fiscal Plan and the revenues from the notional maximum PREPA's rates could become without undermining these goals as the "Revenue Envelope."

The Revenue Envelope was estimated by examining incremental fixed and volumetric components, starting with fixed monthly charges. Fixed charges (as opposed to volumetric charges) are preferable as the primary instrument for raising additional revenues, as they are less impacted by the adoption of solar panels by consumers. As a general matter, solar rooftop adoption in Puerto Rico is already relatively attractive for a variety of reasons, including the large number of sunny days per year, the prevalence of buildings with flat roofs, and the generous incentives offered to adopters of solar technology under Puerto Rico law. Consumers purchasing solar panels would see an immediate reduction in their bill from all volumetric charges. This is because solar panels generate electricity while it is sunny, reducing the volume of electricity drawn from PREPA's system, and thus the amount of any volumetric charge billed to that consumer, including any volumetric legacy charge. On their own, however, solar panels cannot replace PREPA's grid, because they cannot provide power on demand (for example, solar panels do not generate power during the night). As such, most customers are expected to want to remain connected to the PREPA grid when they install solar panels. As long as they do, the installation of a solar roof would neither reduce nor eliminate fixed monthly charges. To avoid paying such fixed monthly charges, a customer would need to remove themselves from the grid entirely. This in turn would require that a customer install sufficient additional equipment, such as batteries, to ensure access to reliable electricity at all times (and be willing to take the risk in the event their own generation and storage capabilities did not suffice). While the cost of the required additional equipment is also decreasing and many solar rooftop installations on Puerto Rico already involve some battery capacity, the cost of installing enough backup capacity to disconnect from the electric grid entirely (and thereby avoid both fixed connection and volumetric charges) will likely remain prohibitive for the vast majority of customers for many years to come (if ever). The expected loss of sales from a rate increase therefore can be mitigated by preferring fixed, rather than volumetric, charges. The loss of sales due to higher volumetric (Legacy) charges not only reduces the amount of revenue collected by a volumetric Legacy Charge, it also lowers the total amount of revenue collected under PREPA's existing rates. Given that rates are set to cover all of PREPA's costs including its fixed costs under an assumed sales volume, lower sales due to solar roof adoption lead to the need to increase base rates for all customers and those higher base rates would affect all customers, more so those customers that do not have solar roofs. Since higher-income customers tend to be more likely to be early

adopters of solar roofs, solar adoption would also be expected to benefit primarily higher-income households and hence lead to (a) a more rapid loss in PREPA sales to higher-income households and (b) a shifting of the burden of PREPA's rates to those least able to afford it.

The use of fixed monthly connection charges, rather than volumetric charges, is also increasingly being considered on the mainland U.S. as a response to increasing solar rooftop installations. Accordingly, fixed charge was selected as the primary instrument for generating incremental revenues.

The fixed maximum monthly residential charge was developed using a benchmark surveying fixed charges imposed by electric utilities across the U.S. as an outer limit, among other considerations. The additional hypothetical maximum volumetric charges were thereafter estimated by reference to the elasticity and affordability considerations mentioned above. It was assumed that households with Modified Adjusted Gross Income (MAGI) below a certain threshold similar to the MAGI eligibility levels needed to qualify for Medicaid healthcare benefits in Puerto Rico, and currently-subsidized rate classes (e.g., public housing customers), cannot afford significant rate increases beyond what is assumed in the Fiscal Plan.² The maximum volumetric charge under the Revenue Envelope calculation was therefore set so that the resulting electric bill would be affordable, in the first year of implementation, for non-exempt households with assumed income of \$24,000,3 monthly volumetric consumption of 425 kWh,4 and using the rates in the 2022 Fiscal Plan as the baseline, where affordability is defined as a maximum total electricity bill not above 6% of total income. Affordability was set at 6% of total income, or 6% "wallet share," because this 6% energy burden threshold is currently used in several mainland U.S. States as a baseline for providing support to consumers. Indeed, it is likely this 6% wallet share constitutes the very upper limit of affordability since comparable incomes and electric rates in the mainland U.S. are significantly higher than in Puerto Rico.

To estimate the Revenue Envelope the combination of additional fixed and volumetric charges estimated to result in the maximum additional revenue that could be generated from (non-exempt) Residential customers was then scaled to Commercial and Industrial customers, with

² Because PREPA's current rate classes do not identify current household income, the Oversight Board believes that the existing subsidized residential rate classes do not capture all households with a household annual income below \$20,000. Accordingly, the Oversight Board is developing a methodology for identifying and applying additional criteria for exemption from the Legacy Charge, as more fully discussed in the Disclosure Statement and in the Plan.

³ Pursuant to the U.S. Census, median 2021 household income was estimated to be \$21,967 for the period 2017-2021, expressed in 2021 dollars. *See* https://data.census.gov/table?q=Insurance,+Utilities,+and+Other+Fees&g= 0400000US72&tid=ACSST5Y2021.S2503. Pursuant to Fiscal Plan inflation assumptions, such median household income in 2024 is estimated to be approximately \$23,824. Notably, however, the U.S. Department of Commerce suggests caution when using income estimates for 2020 and 2021. The 2020 Survey did not meet the quality requirements of the U.S. Census due to COVID and therefore was not released. The 2021 survey has inconsistent reporting of transfer payments due to inclusion of non-recurring federal income support such as COVID relief and stimulus payments, supplemental unemployment insurance benefits and advance child tax credit payments.

⁴ Based on PREPA monthly usage data provided in November of 2022. LUMA provided the data at the request of the Oversight Board but was not involved in the development of the Legacy Charge or the Revenue Envelope.

differences in elasticities appropriate for those customer classes being taken into account.⁵ The rates for the Legacy Charge calculated for the Residential, Commercial and Industrial customer classes based on these considerations are detailed on Schedules B of the Plan. The maximum incremental revenue expected to be generated by the Legacy Charge was then calculated by multiplying the rates detailed on Schedule B of the Plan by the load projection contained in the PREPA FY 2022 Fiscal Plan on an annual basis.

e. Reductions from Elasticity Effect and Non-Fiscal Plan Costs

This maximum incremental revenue (*i.e.*, the Revenue Envelope), however, is subject to a number of reductions that must be made to arrive at revenues available for the payment of debt. First, price elasticity of demand must be taken into account. The increased rates will result in a loss of electricity sales over the subject 35 years. Moreover, while sales will decrease, not all PREPA's costs will decrease consistent with the lower sales. While some of PREPA's costs are variable (meaning they scale with the volume of sales), many of PREPA's costs are fixed (*i.e.*, they remain constant even if the sales decrease). The effect of price elasticity resulting from the Legacy Charge is expected to reduce the kWh sales otherwise projected in the Fiscal Plan, causing a shortfall in the (non-Legacy Charge) revenues available to cover fixed costs.

For PREPA to remain sustainable, it must collect revenues sufficient to cover all its costs, including its fixed costs. However, the Revenue Envelope calculated above was based on the sales projections contained in the Fiscal Plan for the next 35 years. As indicated above, the sales projections in the Fiscal Plan were calculated based on a lower rate that did not include any amount for debt service. Applying price elasticity of demand means that, with the Legacy Charge included, PREPA's sales will trend lower than the sales projections included in the Fiscal Plan. As a consequence, the revenue PREPA earns from the remainder of its rates (other than the Legacy Charge) will be lower than those projected in the Fiscal Plan, and those lower revenues will not be sufficient to cover all of PREPA's fixed costs. Therefore, a portion of the Revenue Envelope—a portion of the hypothetical additional revenues associated with the increased rates—must be allocated to general PREPA operating costs to cover lost revenue.⁶ This means any initial estimate of the gross amount (*i.e.*, the Revenue Envelope) available for the Legacy Charge (the "outer bound" referenced above), must be reduced to allow PREPA to pay for the expected shortfall in fixed cost recovery.

⁵ Specifically, the ratio of total fixed monthly fee (current plus Legacy Charge fixed fee) to the current fixed monthly fee was applied to determine fixed fee increases for other customer classes. For volumetric rates, a combination of assumed elasticities for non-Residential customer classes and the range of average volumetric charge increases across the range of residential customers was used to develop multipliers between 25% and 100% for non-Residential classes.

⁶ More specifically, any Legacy Charge implemented to pay legacy debt obligations must consider that the volumetric component of the Legacy Charge will tend to lower sales, which in turn will require increases to rates to ensure revenues are sufficient to pay all of PREPA's fixed costs. The affordability of the Legacy Charge depends not only on the impact of the Legacy Charge on electric bills, but also on the bill increases due to these required rate increases to compensate for PREPA sales losses.

A second set of reductions is related to necessary costs not currently accounted for in PREPA's Fiscal Plan. Notably, the Fiscal Plan does not include capital expenditures (and matches to federal funding) PREPA will likely need to make to remain a viable operating entity. During the Fiscal Plan term, those expenditures are estimated to total \$2.425 billion (on an undiscounted basis). The gross available revenues available for debt service pursuant to the Legacy Charge must be reduced by this amount as well.

After the reduction due to the fixed cost recovery loss due to the effect of price elasticity, and the reduction due to necessary costs not accounted-for in the Fiscal Plan, *net* Legacy Charge revenues were estimated to create annual net revenues sufficient to support the issuance of bonds (and their repayment over a 35-year term) with a par value of approximately \$5.68 billion. *See* Exhibit D to the Disclosure Statement.

f. Assignment of the Legacy Charge among Customers

Having developed the net present value of the Legacy Charge revenues, the Oversight Board developed the specific Legacy Charge rate design for each customer class. This involved determining specific fixed and volumetric rates estimated to generate revenues supporting payments to amortize approximately \$5.68 billion in bonds over 35 years.

The rates were also developed to ensure affordability for median income residential customers. Specifically, the rates were designed to (i) maintain affordability while accounting for current rates significantly above Fiscal Plan rates and (ii) ensure that lower income/lower usage customers do not pay a higher Legacy Charge on a blended per-kWh basis than do higher income/higher usage customers.

The specific composition of rates to be charged across the various PREPA rate classes in connection with the Legacy Charge, subject to modification in accordance with the Plan, is set forth in section II.B.3.iii. of the Disclosure Statement.